

Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

DTG1-126US

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Typed or printed name \_\_\_\_\_

Application Number

10/564,594

Filed

May 15, 2006

First Named Inventor

Stephen W. Sankey

Art Unit

1783

Examiner

Watkins, William

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record. 50,379  
Registration number \_\_\_\_\_

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_



Signature

Frank P. Tisc

Typed or printed name

302-778-3465

Telephone number

9/12/2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appln. No: 10/564,594  
Applicant: Stephen William Sankey, et al.  
Filed: May 15, 2006  
Title: SELF-VENTING POLYMERIC FILM  
TC/A.U.: 1783  
Examiner: William P. Watkins, III  
Confirmation No.: 1832  
Docket No.: DTG1-126US

**REASONS FOR REQUEST FOR PRE-APPEAL BRIEF REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Claims 1-33 are pending in the application, and claims 21-27 are withdrawn from consideration.

Claims 1-20 and 30-33 are rejected under 35 USC § 103(a) as unpatentable over WO 01/92000 A1 ("Lin") in view of U.S. 4,515,841 ("Dyke") and further in view of U.S. 6,682,792 ("Schmal"). Schmal is relied upon to teach the use of biaxially oriented films.

Applicants' claims all recite a composite film, one feature of which is a water-soluble layer. The Examiner admits that Lin does not explicitly teach a water soluble layer<sup>1</sup>, but considers that it would have been obvious to use a water soluble material such as taught by Dyke for Lin's sealing layer 16. Applicants respectfully disagree, for at least two reasons. First, Lin requires that layer 16 be water-repelling or waterproofing, a feature that a water soluble material cannot provide. Second, Lin requires that the sealing layer soften/melt with high temperature and then resolidify upon cooling. A water-soluble material that dissolves as taught by Dyke would not resolidify upon cooling. Each of these deficiencies would render Lin's film unsuitable for its intended purpose, as will now be discussed in

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<sup>1</sup> Lin also does not teach a water-soluble layer inherently, as Applicants explained in their response to the Final Office Action. The Examiner has not contested this explanation.

detail, and therefore the proposed modification would not have been obvious<sup>2</sup> at the time Applicants' invention was made.

• Water-repelling or waterproofing is required by Lin, but is not provided by the Examiner's proposed modification of Lin's invention.

Applicants have pointed out, and the Examiner has not disputed, that making Lin's layer 16 from a water soluble material would make water repellency unachievable. Instead, the Examiner contends that this feature is not essential to Lin's invention. Lin, however, states otherwise. Lin repeatedly emphasizes that water repelling or waterproofing are essential to her invention, including the following statements.

"The sealing layer ... provides the air permeable composite film with water repelling abilities ...".<sup>3</sup> (emphasis added)

"In order to seal the gaps so as to provide the air permeable packaging bag with water repelling abilities ... a sealing layer is formed on the surface of the folded polymer layer."<sup>4</sup> (emphasis added)

"The sealing layer 16 provides the structure 102 with waterproofing abilities, and better thermal insulating properties."<sup>5</sup> (emphasis added)

The sealing layer 16 keeps the gaps 15 both sealed and air impermeable, and provides the structure 102 with water repelling abilities ...".<sup>6</sup> (emphasis added)

"In the preferred embodiment, Paraffin is used [in sealing layer 16] due to its superior water repelling characteristics, and because of its vapor permeability."<sup>7</sup> (emphasis added)

As the Examiner notes<sup>8</sup>, the polyvinyl alcohol used by Dyke dissolves upon absorption of steam. Thus, it is not water-repelling or waterproofing as Lin requires, and this defect alone would make the use of Dyke's polyvinyl alcohol in Lin's sealing layer 16

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<sup>2</sup> If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

<sup>3</sup> Lin page 4 lines 11-13

<sup>4</sup> Lin page 5 lines 1-5

<sup>5</sup> Lin page 10 lines 20-31

<sup>6</sup> Lin page 10 line 31 to page 11 line 1

<sup>7</sup> Lin page 12 lines 5-7

<sup>8</sup> Final Office Action page 3 lines 3-5

unsuitable for its intended purpose. This reason alone is sufficient to make its use not obvious. But there is an additional and independent reason.

• Resolidification of Lin's sealing layer 16 upon cooling is required to reseal Lin's films, but is not provided by the Examiner's proposed modification of Lin's invention.

Regarding resolidification upon cooling, Lin states as follows.

"On the other hand, when the heating source is removed, the temperature of the composite film structure 102 decreases and the sealing layer 16 regains its sealing abilities."<sup>9</sup> (emphasis added)

"During the sterilization process, the bag inflates and the sealing ability of the sealing material decreases. Hot and high pressure air ventilates through the gaps in the permeable packaging bag. After the sterilization process, the temperature of the packaging bag returns to room temperature. The molten sealing material solidifies and re-seals the gaps while the temperature decreases. The sealing abilities of the sealing material returns (sic)."<sup>10</sup> (emphasis added)

"... on the other hand, when the heating source is removed, the temperature of the composite film decreases and the sealing ability of the sealing layer is restored."<sup>11</sup> (emphasis added)

Thus, Lin is quite clear that sealing layer 16 must reseal by resolidifying upon cooling. The Examiner nonetheless proposes an alternative statement of Lin's requirements, saying that "The essential function of Lin is that the sealing film and substrate vent when exposed to steam during cooking."<sup>12</sup> There is no basis in Lin for such a statement. Lin does not teach that steam exposure causes venting. Lin is very clear about how the package vents, and it is not by steam. Specifically, Lin teaches that increases in pressure and temperature are the cause, saying that "When the composite film structure 102 comes into contact with hot air, the heat of the hot air will degrade the sealing ability of the sealing layer 16, opening the pseudo-closed tiny gaps 15 ...".<sup>13</sup> (emphasis added) Then, "... when

<sup>9</sup> Lin page 11 lines 23-25

<sup>10</sup> Lin page 15 lines 24 to 31

<sup>11</sup> Lin claim 1 lines 16-19

<sup>12</sup> Office Action page 4 at point 4

<sup>13</sup> Lin page 11 lines 16-18

the heating source is removed, the temperature ... decreases and the sealing layer 16 regains its sealing abilities."<sup>14</sup> (emphasis added)

As the Examiner notes<sup>15</sup>, the polyvinyl alcohol used by Dyke dissolves upon absorption of steam. Nothing in Dyke indicates that the resulting aqueous polyvinyl alcohol solution is capable of resolidifying and re-sealing upon cooling. (Dyke is interested only in opening pores in a bag to admit steam for sterilizing biohazardous waste prior to disposal.<sup>16</sup> There is no interest in resealing the bag, and no teaching that resealing occurs.) Applicants submit that, indeed, the aqueous polyvinyl alcohol solution produced by dissolving Dyke's polyvinyl alcohol does not solidify upon cooling as Lin requires.

The Examiner uses EP 1086809 (Abstract) as a teaching reference (It is not relied upon in the rejection) to indicate that a water-soluble film can be re-sealed<sup>17</sup>. This is a broad statement and, regardless of whether it is true, Applicants again note that the water-soluble seal layer of '809 does not reseal by solidifying upon cooling as Lin requires. In the Advisory Action the Examiner has sought to disprove this statement by saying that when steam is no longer present the layer dries out. But of course drying is not the same as cooling, and there is no indication that they would occur simultaneously, so this argument lacks logic. Lin plainly states, repeatedly, that the sealing layer re-seals upon cooling. But the rejection ignores Lin's own repeated statements defining this essential feature of her invention, and substitutes different performance criteria to support a proposed modification that would in fact be inconsistent with Lin's stated requirements.

It is not obvious to modify an invention (Lin's) in a way that destroys an essential feature of that invention. Lin makes it clear that the ability to solidify upon cooling is essential, saying "when the heating source is removed, the temperature ... decreases and the sealing layer 16 regains its sealing abilities". But using a water-soluble material that dissolves in water (as the Examiner admits) in Lin's sealing layer 16 would not provide this feature, and it would therefore not have been obvious to make this proposed modification. Thus, the rejection should be withdrawn.

Additionally, the proposal to use a water soluble material for Lin's sealable layer 16 would not have been obvious because such a modification would have changed the principle

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<sup>14</sup> Lin page 11 lines 23-25

<sup>15</sup> Final Office Action page 3 lines 3-5

<sup>16</sup> Dyke column 3 lines 31-36


<sup>17</sup> Final Office Action page 4

of operation of Lin's invention. As noted, Lin's layer 16 is designed to achieve reversible venting by melting/softening under heat and pressure, then resolidifying upon cooling. That is a different principle of operation than dissolving under the influence of steam, and a modification that changes the principle of operation of a prior art invention is not obvious.<sup>18</sup>

#### Conclusion

Applicants have pointed with specificity to Lin's explicit teaching that 1) water repellency and 2) an ability to reseal upon cooling are essential features of her invention. The rejection relies upon an unsupported and incorrect alternative definition of Lin's "essential function" as the ability to vent under the influence of steam (a feature that Lin never mentions). The rejection then denies that the proposed combination of references would not undermine the purposes of that incorrectly-defined invention. Applicants respectfully submit that the proposed modification would indeed render Lin's invention, as she herself defines it, unsuitable for its intended purpose. Thus, the Examiner has committed a clear error in maintaining the rejection, and withdrawal of the rejection is therefore respectfully requested.

Respectfully submitted,

  
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Frank P. Tise, Reg. No. 50,379  
Attorney and Agent for Applicants

RAD/FPT/jyr

Enclosure: Notice of Appeal

Dated: September 12, 2011

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The Director is hereby authorized to charge or credit Deposit Account No. 18-0350 for any additional fees, or any underpayment or credit for overpayment in connection herewith.

<sup>18</sup> If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) See MPEP at 2143.01 VI.